Responses for DOE Economic Dispatch Survey

Entity: North Carolina Municipal Power Agency 1 (NCMPA1)

NCMPA1 is a load serving entity (LSE) taking OATT service from Duke Power in the VACAR Subregion of the Southeastern Electric Reliability Council (SERC). NCMPA1 does not own or operate transmission facilities, and it does not reside within an RTO or ISO. The responses to this survey listed below are an attempt to accurately capture the way that NCMPA1 conducts business. Observations on the way in which business is conducted within the VACAR Subregion are provided. However, such comments are only observations, and may not accurately represent the way in which other entities within the Subregion conduct business. The comments stated herein do not represent any other entity other than NCMPA1. General comments about the regional power market are only included to put the actions of NCMPA1 into context.

Question 1: What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, An ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the dispatch area)?

> Each entity within the region is responsible for its own dispatch based upon the resources it has at its disposal either through ownership, contract, or some other arrangement. Therefore, procedures for economic dispatch vary from entity to entity. In NCMPA1's case, NCMPA1 or its agent will assign tags for dispatch. Duke Power, the incumbent IOU, operates the transmission system and actually communicates with the generators. NCMPA1 is responsible for an annual peak load of approximately 1100 MW. Duke Power operates a control area in western North and South Carolina.

Question 2: Is the Act's definition of economic dispatch (see above) appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there any other factors or considerations that should be considered in economic dispatch, why?

> The definition is broad and non-specific, but appears to be accurate. The definition should include the concept of having a dispatch that is the least cost while maintaining system reliability. The stated definition apparently does this.
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> The ideal economic dispatch scenario is one over a large geographic area, administered by an RTO. A large geographic area provides economy of scale. An RTO can provide efficient, least-cost dispatch of all regulated and non-regulated generators.
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> Efforts should be made to increase geographic scale where ever possible to gain dispatch efficiencies. Size limitations should be based on the natural geographic

limitations of the participants, system reliability, and operational viability. Geographic scale should be assessed on a case-by-case basis.

Other considerations in economic dispatch could be unit and transmission operational limitations, environmental limitations through regulation, as well as the availability of environmental alternatives (renewables, wind power, etc.).

Question 3: How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how often this occurs, and its impacts upon non-utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

NCMPA1 has no basis for comment on utility-owned vs. non-utility generation. NCMPA1 is only responsible for its own generation sources.

Question 4: What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by non-utility generators, please explain the changes you recommend.

In our region, two issues come to mind. First, as mentioned in our response to Question 2, our view is that the larger the geographical area included in the dispatch, the more economically beneficial the dispatch will be to all market participants. Presently in our region, each utility economically dispatches its own resources. If the dispatch were expanded so that all of the resources of the region were included for consideration in the dispatch, higher cost generators would be displaced by more efficient independently owned resources. Therefore, our recommendation is to expand the dispatch area to include as many generators as is feasible.

Second, in North Carolina, the state has enacted a rule that limits the amount of money IOUs can recoup when they make energy purchases from the market instead of dispatching more expensive resources that they own. The premise behind the rule is that market energy costs are composed of a fixed cost component that is associated with the cost of the generating plant and a variable cost component that is associated with the cost of producing the energy. State law only allows IOUs to pass fuel costs onto the retail customers through the fuel adjustment clause. So the rule that is in place allows only a fraction of the purchased energy cost to be passed on by the IOUs to the retail customers. The rule provides no means other than a full cost-of-service rate filing to recover the other fraction of the purchased energy cost.

Question 5: If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or

other impacts? How would this affect retail customers in particular states or nationwide? If you have specific analyses to support your position, please provide them to us.

NCMPA1 maintains that the availability and use of all generation sources within a given market or region can only lead to more efficiency, lower costs, and greater reliability for customers. The presence of fair competition and transparency in the energy markets can only lead to the most efficient supply curve possible that will lead to lower costs for the retail customers.

Question 6: Could there be any implications for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

Grid reliability can always be affected whenever the mix or dispatch of generators is changed. However, the mix and dispatch of generators must continually change in order to meet growing demand. Whether or not an IOU or a non-IOU owns and operates the generation is immaterial. The same transmission planning studies must be performed in order to connect a generator to the grid, and the same rigor must be maintained in those studies regardless of who owns and operates the generator. In operational scenarios the transmission operator has the responsibility and the authority to control the dispatch of all generators in order to maintain system reliability. Reliability can be maintained through such a process.